Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (currently amended)A method for hybridizing one or more nucleic acid molecules, said method comprising

i) contacting one or more double-stranded nucleic acid molecules with a denaturant selected from the group consisting of

a) one or more amino acid denaturants,

b) imidazole, and

c) one or more amino acid denaturants plus imidazole,

thereby forming one or more single-stranded target nucleic acid molecules; and

ii) combining said one or more single-stranded target nucleic acid molecules with one or more additional nucleic acid molecules wherein said one or more additional nucleic acid molecules are capable of hybridizing to said single-stranded target nucleic acid molecules thereby obtaining one or more of said hybridized nucleic acid molecules;

wherein said amino acid denaturants are selected from the group consisting of one or more amino acids, polyamino acids, and combinations thereof; wherein said amino acid denaturants denature or separate double-stranded nucleic acid molecules.

2. (cancelled)

3. (previously presented) The method of claim 41, wherein said polyamino acids comprise two or more amino acids.

4. (previously presented) The method of claim 41, wherein said amino acid denaturants are selected from the group consisting of glycine, D-alanine, L-alanine, DL-alanine, arginine, glutamine, isoleucine, leucine, methionine, phenylalanine, proline, serine, threonine, tryptophan, tyrosine, and valine.

5. (cancelled)

6. (previously presented) The method of claim 1, wherein the concentration of said denaturants ranges from about 1 mM to about 500 mM.

7. (original) The method of claim 6, wherein said concentration ranges from about 5 mM to about 50 mM.

8. (original) The method of claim 7, wherein said concentration is about 10 mM.

9-40. (cancelled)

41. (currently amended) The method of claim 1 ~~claim 2~~, wherein said amino acid denaturants are natural or unnatural amino acids.

42-71. (cancelled)

72. (previously presented) The method of claim 1, wherein said one or more additional nucleic acid molecules is haptenylated.

73. (currently amended) A method for hybridizing one or more nucleic acid molecules, said method comprising

i) contacting one or more haptenylated double-stranded nucleic acid molecules with a denaturant selected from the group consisting of

a) one or more amino acid denaturants,

b) imidazole, and

c) one or more amino acid denaturants plus imidazole,

thereby forming one or more non-haptenylated single-stranded nucleic acid molecules and one or more haptenylated single-stranded nucleic acid molecules; and

ii) combining said one or more non-haptenylated single-stranded nucleic acid molecules with one or more additional nucleic acid molecules wherein said one or more additional nucleic acid molecules are capable of hybridizing to said non-haptenylated single-stranded nucleic acid molecules thereby obtaining one or more of said hybridized nucleic acid molecules;

wherein said amino acid denaturants are selected from the group consisting of one or more amino acids, polyamino acids, and combinations thereof; wherein said amino acid denaturants denature or separate double-stranded nucleic acid molecules.

74. (previously presented) The method of claim 73, wherein said one or more non-haptenylated single-stranded nucleic acid molecules are obtained from a cDNA library.

75. (previously presented) The method of claim 73, wherein said one or more haptenylated single-stranded nucleic acid molecules is shorter than said one or more non-haptenylated single-stranded nucleic acid molecules.

76. (previously presented) The method of claim 73, wherein said contacting and said combining occur in a homogenous solution.

77. (previously presented) The method of claim 73, wherein said contacting and said combining occur in a heterogenous reaction mixture.

78. (previously presented) The method of claim 1, wherein said one or more double-stranded nucleic acid molecules is a cDNA library.

79. (previously presented) The method of claim 1, wherein said one or more single-stranded target nucleic acid molecules is longer than said one or more additional nucleic acid molecules.

80. (previously presented) The method of claim 1, wherein said contacting and said combining occur in a homogenous solution.

81. (previously presented) The method of claim 1, wherein said contacting and said combining occur in a heterogenous reaction mixture.

82. (new) The method of 73, wherein said amino acid denaturants are natural or unnatural amino acids.

83. (new) The method of claim 82, wherein said polyamino acids comprise two or more amino acids.

84. (new) The method of claim 82, wherein said amino acid denaturants are selected from the group consisting of glycine, D-alanine, L-alanine, DL-alanine, arginine, glutamine, isoleucine, leucine, methionine, phenylalanine, proline, serine, threonine, tryptophan, tyrosine, and valine.

85. (new) The method of claim 73, wherein the concentration of said denaturants ranges from about 1 mM to about 500 mM.

86. (new) The method of claim 85, wherein said concentration ranges from about 5 mM to about 50 mM.

87. (new) The method of claim 86, wherein said concentration is about 10 mM.